

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**

- **Trade name:** LDS gel loading buffer ROTI®-LOAD 3 (LDS)

- **Article number:** 3359

- **Registration number**

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

- **Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

- **Application of the substance / the preparation** Laboratory chemical

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Carl Roth GmbH + Co.KG

Schoemperlenstraße 3-5

76185 Karlsruhe

Germany

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

e-mail: sicherheit@carloth.de

- **Further information obtainable from:** Department Health, Safety and Environment

- **Emergency telephone number:** Poison Centre Munich

Telefon +49/(0)89 19240

## 2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS07

- **Signal word** Warning

- **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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**Precautionary statements**

- P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical advice/attention.

**Other hazards**

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

**Results of PBT and vPvB assessment**






- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 56-81-5 EINECS: 200-289-5	Glycerol substance with a Community workplace exposure limit	25-50%
CAS: 2044-56-6 EINECS: 218-058-2	lithium dodecyl sulphate  Xn R22;  Xi R36/37/38  Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	3-<10%
CAS: 1310-73-2 EINECS: 215-185-5	sodium hydroxide  C R35  Met. Corr. 1, H290; Skin Corr. 1A, H314	1-<2%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures


**Description of first aid measures**
**General information:**

General advice: No induce of vomiting by layman.  
 Remove any clothing soiled by the product.

**After inhalation:**

Supply fresh air.  
 Seek medical treatment in case of complaints.

**After skin contact:**

Immediately rinse with water.  
 If there is any trouble seek medical help.

• **After eye contact:** Rinse opened eye for 10 minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and drink a glass of water. Do not induce vomiting.  
 Call for a doctor immediately and show the container or label.

**Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Use fire extinguishing methods suitable to surrounding conditions.  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture**  
In the event of fire development of hazardous combustion gases or vapours possible.
- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information** Not combustible.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective clothing.  
Do not inhale vapours. Avoid contact with the eyes and skin.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ground water or penetrate the soil.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (e.g. Rotisorb® Art.-Nr. 1710.1).  
Dispose of the material collected according to regulations.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.  
Keep containers, equipment and working place clean.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Storage class:** 12
- **Specific end use(s)** No further relevant information available.

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## 8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.

- **Control parameters**

- **Ingredients with limit values that require monitoring at the workplace:**

<b>56-81-5 Glycerol</b>	
WEL (Great Britain)	Long-term value: 10 mg/m <sup>3</sup>
<b>1310-73-2 sodium hydroxide</b>	
WEL (Great Britain)	Short-term value: 2 mg/m <sup>3</sup>

- **Additional information:** The lists valid during the making were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

- **Respiratory protection:** Required when vapours/aerosols are generated.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Nitrile, thickness: > 0.11 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

Value for the permeation: Level ≥ 6

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

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## 9 Physical and chemical properties

<ul style="list-style-type: none"> <li>· Information on basic physical and chemical properties</li> <li>· General Information</li> <li>· Appearance: <ul style="list-style-type: none"> <li>Form: Fluid</li> <li>Colour: Colourless</li> </ul> </li> <li>· Odour: Uncharacteristic.</li> <li>· Odour threshold: Not determined.</li> </ul>	
· pH-value at 20°C:	7.7
· Change in condition <ul style="list-style-type: none"> <li>Melting point/Melting range: Undetermined.</li> <li>Boiling point/Boiling range: Undetermined.</li> </ul>	
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	No information available
· Decomposition temperature:	Not determined.
· Self-igniting:	Product is not self-igniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: <ul style="list-style-type: none"> <li>Lower: Not determined.</li> <li>Upper: Not determined.</li> </ul>	
· Vapour pressure at 20°C:	23 hPa
· Density: <ul style="list-style-type: none"> <li>Relative density: Not determined.</li> <li>Vapour density: Not determined.</li> <li>Evaporation rate: Not determined.</li> </ul>	
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: <ul style="list-style-type: none"> <li>Dynamic: Not determined.</li> <li>Kinematic: Not determined.</li> </ul>	
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided:
  - No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions: No information available.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No information available.
- Hazardous decomposition products: In case of fire: see item 5.

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## 11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

<b>1310-73-2 sodium hydroxide</b>		
Oral	LD50	2000 mg/kg (rat)

- **Specific symptoms in biological assay:** No information available.

- **Primary irritant effect:**

- **on the skin:** Irritant to skin and mucous membranes.

- **on the eye:** Irritating effect.

- **after inhalation:** No information available.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

- **Further information:** The product should be handled with the care usual when dealing with chemicals.

- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)** No information available

## 12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Fish toxicity:**

<b>1310-73-2 sodium hydroxide</b>		
LC50	45 mg/l/96 h	(Onchorhynchus mykiss) (50% ige Lösung (IUCLID))

- **Daphnia toxicity:**

<b>1310-73-2 sodium hydroxide</b>		
EC50	76 mg/l/24 h	(Daphnia magna) (50%ige Lösung (Fremdsicherheitsdatenblatt))

- **Persistence and degradability** No further relevant information available.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Ecotoxicological effects:**

- **Remark:** Do not allow to enter waters, waste water, or soil!

- **Additional ecological information:**

- **General notes:** Do not allow product to reach ground water, water course or sewage system.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADR, ADN, IMDG, IATA</b></li> <li>· <b>Class</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	Void
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	No
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	-

## 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:** In dealing with chemicals the national laws must be observed.
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H290 May be corrosive to metals.  
H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.

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R22 Harmful if swallowed.  
R35 Causes severe burns.  
R36/37/38 Irritating to eyes, respiratory system and skin.

- **Department issuing MSDS:** Department: Health, Safety and Environment
- **Contact:** Herr Dr. Hagel

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**- Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

GB